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ABSTRACT

Section one of this paper describes the history and development of the "communicaton audit," a system for assessing communication effectiveness in organizations, by the International Communication Association. Section two describes the 16 audits conducted so far and the overall demographic characteristics of the current survey data bank. Part three presents the current norms for the survey and major conclusions about organizational communication derived from these norms. Part four analyzes these norms by both organizational type and major demographic variables, providing evidence to test theories about organizational communication. Extensive tables are included. (AA)

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ICA COMMUNICATION AUDIT SURVEY INSTRUMENT:

1977 ORGANIZATIONAL NORMS

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I. INTRODUCTION

A. History of ICA Communication Audit

The concept of auditing communication in an organization is not a new one. Odiorne (1954) was the first in the literature to use the phrase "communication audit". Since then, Guetzkow (1965), Porter and Roberts (1972), Price (1972), Redding (1972), Roberts and O'Reilly (1974) and Goldhaber (1974) have reviewed the literature and described the instruments, techniques, tools and methods used to assess or audit communication effectiveness in organizations. These summaries and reviews of the original studies reveal that most suffer from methodological weaknesses which limit their utility today: use of small samples, unreplicated measurements, limited predictive validity, lack of comparative analyses (Goldhaber and Krivonos, 1977).

Recognizing the problems associated with previous approaches to the measurement of organizational communication, Division IV (the Organizational Communication Division) of the International Communication Association (ICA) decided in 1971 to begin the development of its own measurement system, called the ICA Communication Audit. After three years of development and two of pilot-testing, the ICA Communication Audit has been successfully implemented in 17 organizations in the United States and Canada, with over 8,000 people being audited. Table 1 describes the objectives, resources and results of the 6-year history of the ICA Communication Audit. Complete information about the history and development of the audit appears elsewhere (Goldhaber, 1976; Yates, et. al., 1976; Goldhaber and Krivonos, 1977). The only comparable efforts at measuring organizational communication are the work of the University of Michigan's Institute of Social Research (Taylor and Bowers, 1972) and of Osmo Wiio at the Helsinki Research Institute for Business Economics (Goldhaber, et. al. in press and Wiio, 1974, 1976). The former, although reporting norms derived from over 20,000 persons in 15 organizations, only uses three of 92 (1970 version) survey items to measure communication. The latter, reporting norms derived from over 5,000 persons in 22 organizations, is limited to the use of a single questionnaire for its data collection. While similar in overall goals (to establish a normed data bank to facilitate comparative analyses and theory-building) to the work of Wiio and ISR, the ICA Communication Audit's products are more extensive:

1. An organizational profile of perceptions of communication events, practices, and relationships; this profile can be further analyzed according to such demographics as: age, sex, education, supervisory status, division and/or department, job tenure.

2. A map of the operational communication networks for rumors, social, innovative and job-related messages, listing all group members, liaisons and isolates, identifying potential bottlenecks and gatekeepers.

3. Verbal summaries of successful and unsuccessful communication experiences used to explain some of the reasons for communication problems or strengths identified in the above profiles and networks.

4. An organizational and individual profile of actual communication behaviors summarizing major message sources, receivers, topics, channels, lengths, and qualities, thus allowing comparisons between actual and perceived communication behaviors.

5. A set of general recommendations, derived from the results of the audit, indicating which attitudes, behaviors, practices, and skills should be continued, added, changed, or eliminated.

6. Several personnel from the organization familiar with the ICA Audit instruments and procedures, helping the organization to take the major initiative in conducting future audits themselves.

7. Permanent future access (on a confidential basis) to the ICA Audit data bank, allowing the organization to compare the results of present and future audits with those of similar organizations.

B. Audit Instruments and Procedure

The ICA Communication Audit uses five measurement tools, each of which can be administered independently or in any combination.

1. Questionnaire Survey- 118 items and 10 demographics plus up to 18 questions of any type determined by the organization. The reliability of the scales on the 118 item set ranges from a low of .70 to a high of .90. The validity of these scales is based upon their self-evident relationship to organizational communication and their ability to predict organizational outcomes. Respondents answer the survey anonymously in group sessions lasting about 45 minutes. The survey allows respondents to indicate their perception of the current status of their communication system as well as their desired or ideal status. This helps the identification of communication needs in the organization (Although complete information about the survey and its development appears elsewhere--Yates, et. al., 1976 and Goldhaber, 1976--the next section of this paper summarizes in more detail its content, reliability and validity.)

2. Interviews- Randomly and/or purposively selected members of the organization are asked to participate in one-on-one interviews, the principal purpose of which is to corroborate and/or expand upon concerns reported in other audit tools. Two interview schedules are used: one that is structured to provide exploratory information, using open-ended questions; and a follow-up guide which is specifically tailored to each organization to explain findings revealed through the use of other audit tools. Most interviews last 1-1½ hours, and all are conducted confidentially (sometimes using two interviewers and/or tape recorders to facilitate data analysis).

3. Network Analysis- Respondents indicate the extent to which they typically communicate with each individual in their unit or department (or with key individuals outside their unit). A computer examination of all communication links identifies the operational communication network (for rumors, social and job-related messages) and places individuals into communication roles of isolate, liaison, or group member (See Richards, 1975 and Lesniak, et. al., 1977). The instrument is completed in group sessions lasting about 30 minutes.

4. Communication Experiences- Respondents describe critical communication episodes which they feel are representative of typical successful or unsuccessful incidents. From these descriptions a set of examples are developed to help illustrate why a given unit or department is experiencing good or bad communication. These qualitative data add much richness to, and provide explanation for, information from other audit tools. Respondents complete this instrument in group or individual sessions lasting about one hour. All data are computer analyzed confidentially (Porter, 1976).

5. Communication Diary- Similar to the work of Conrath (1974), Elton, et. al., (1970), Pye (1976, 1977), and Thorngren (1970), each participant is asked to maintain a diary of specified communication activities (conversations, phone calls, meetings, written materials sent or received) over a one-week period. Forms are provided to simplify the recording of these communication events. Cumulative time required per person for the entire week is approximately 1½ hours, including a short training period. These data are confidentially analyzed by computer and provide indications of actual communication behavior among individuals, groups and the entire organization (Porter, 1976).

In order to complete the Communication Audit within a reasonable time-frame (usually about 6 months), the following timetable is suggested:

ACTIVITY	DURATION
1. Finalize contract; prepare tools	2 weeks
2. Conduct exploratory interviews	1 week
3. Transcribe interviews and prepare for analysis	1 week
4. Analyze exploratory interviews	2 weeks
5. Administer survey, communication experiences and network analysis questionnaires	1 week
6. Analyze survey; communication experiences and network analysis data	6 weeks
7. Preliminary interpretation of data, formulation of follow-up interview guide, communication diary log	3 weeks
8. Conduct follow-up interviews, administer communication diary	2 weeks
9. Transcribe interviews and prepare for analysis; prepare diary data	1 week
10. Analyze follow-up interviews, communication diary	2 weeks
11. Interpret data, draw conclusions, prepare recommendations, write final report	4 weeks
12. Present final report (orally and in writing), discuss future steps	2 days
TOTAL ELAPSED TIME	25.3 weeks

C. Development of Survey Questionnaire

Based upon the work of Redding (1972), Roberts and O'Reilly (1974) and Dennis (1975), members of the ICA Communication Audit team identified conceptual areas of importance to the measurement of organizational communication. These conceptual areas and the theoretical framework from which they are derived are explained elsewhere (See Goldhaber, 1976, Appendix 1, and Yates, et. al., 1976, pp. 15-17, esp. Table 1). In short, the survey was intended to measure both attitudes ("how do you feel?") and perceptions about ("to what extent do you...?") communication sources, messages, channels and receivers within the context of major interfaces (individual to individual, individual to unit, individual to organization, unit to unit and organization to environment). Major topics to be surveyed included concepts about information accessibility, information adequacy, communication satisfaction and importance, communication content (clarity, accuracy, utility, appropriateness, timeliness), communication relationships, and communication outcomes.

Between May and September, 1974, three drafts of an extensive survey were completed, based upon the above framework and revised according to comments provided by audit team members and/or their reviews of existing literature. Draft 3, consisting of 184 items and 9 demographics, was pilot-tested in 6 organizations (n=1,776) between October, 1974-November, 1975. Yates, et. al., 1976 provides

complete statistical information about the results of these pilot-tests and how the survey was revised in accordance with these results (See Yates, esp. pp. 37-53). Primary criteria used in revising the instrument were: reliability (comparison of items with each other and with the entire instrument); inter-item correlation (number of other items within a section of the survey which correlated with it, measuring its internal consistency; predictive validity (how well did the item correlate, across audit, with key organizational outcomes); face validity (clarity, appropriateness, relevance of item, as determined by content experts; importance of item, as determined by organizational members); factor analysis data (did an item cluster with other items, appearing to measure a single factor--see Yates, et. al., 1976, Tables 2-6 for complete factor analysis data). All criteria were used collectively to make decisions for each item; factor analysis data were only useful for the "relationships" section of the survey, where 3 clear factors were identified, accounting for about ½ of the variance.

As a result of the above pilot-testing program, Draft 4 of the survey, containing 116 items and 10 demographics, was completed. Draft 4 was tested in 4 organizations (n=178) between January-April, 1976, and resulted in only minor changes. Between May, 1976 and May, 1977, the current version of the survey, Draft 5, was used in 6 organizations (n=1,977). Table 2 presents the different topics measured in the survey and Table 3 illustrates the scales used to assess these topics.

Draft 5 of the survey, containing 118 items and 10 demographics has an overall reliability of .838. Complete information on the reliability and validity of the survey appears in Table 4.

As can be seen in Table 4, validity indices correlating organizational outcomes with "current status" of communication environment are more predictive than those correlated with "ideal status". Further research will determine whether this measurement paradigm (i.e., "how much information do you receive now?" versus "how much information do you want to receive?") is valid for the ICA Communication Audit.

D. Outline of Paper

The remainder of this paper is divided into four parts. Part II will describe the 16 audits and the overall demographics of the current survey data bank. Part III will present the current norms for the survey and major conclusions about organizational communication derived from these norms. Part IV will analyze these norms by both organizational type and major demographics, providing evidence to test contingency theories about organizational communication.

II. DESCRIPTION OF AUDITS AND DEMOGRAPHICS

A. Audits Completed

Sixteen audits have used the survey instrument; Table 5 presents a summary of the populations, samples and completed returns from these audits. Table 6 groups the organizations according to a general typology (see Hall, 1972). As can be seen from these tables, the survey has been administered in organizations with a total population of 15, 163. About 40% of this population was sampled (n=6,402), with a return rate exceeding 60% (3,931).*

*As indicated in Table 5, survey data from 3 audits (U.S. Senator's Office, Public Defender's Office, Albuquerque Hospital, with total N=123, was not in the data bank for the norms reported in this paper; thus, all analyses reported here are based on an N=3808 for 13 organizations.

Furthermore, almost 3/4 of the survey data bank was collected in hospital or educational institutions; only 17% was collected in the traditional private (or "profit") sector of the economy. Since data collection, for the most part, occurred during the economic recession of 1974-5, this may explain why private sector organizations were more reluctant to be audited than those in the public sector.

B. Demographics

Table 7 summarizes the demographic information collected from the 3,808 persons currently stored in the survey data bank. As can be seen in Table 7, about 60% of those responding are salaried, female non-supervisors who are under 40 years of age. Almost all of the sample works during the day and most indicate they regularly communicate with more than 5 people. The sample was about equally divided regarding the amount of communication training received, with about ½ receiving little or no training and about ½ receiving some or extensive training. Although slightly more than 40% of the sample have worked with their present organization for more than 6 years, less than 30% have held the same job for that period of time, indicating higher job than organizational turnover for this sample; further evidence of the relatively high turnover of this sample is that 56% have worked with their present organization and 72% in their present job for less than 5 years. The sample is relatively well educated with 56% completing at least one college degree; this may be somewhat misleading since almost 40% of the respondents did not answer this item and there was no opportunity to indicate that a respondent did not yet complete high school. Of the items which were used in all audits (i.e., some demographics were not relevant in some audited organizations), only are had a low response rate; 48% of the sample did not indicate their age.

III. NORMS FOR ICA SURVEY INSTRUMENT

The data from the 3,808 persons (13 organizations) currently in the survey data bank were submitted to analysis by Porter's CAAS (1976) computer program which rank orders survey items according to the number (percentage) of people responding to a given combination of scales. The ICA's survey norms, thus include both reports of mean's (on a 1-5 item scale) and percentages of people selecting certain responses; additionally, where "current status" and "ideal quality" conditions were measured, a "need" index was computed which increases roughly as a function of the discrepancy between "current" and "ideal" conditions. Need indices may also be used as "normative" data for purposes of comparative analyses.

A final note is necessary before presenting the norms. As Wiio (1976) has correctly pointed out, "large samples tend to give sometimes rectangular or bimodal distributions." As a result, he recommends against using just the means and standard deviations for comparing survey items, and suggests using contingency analysis and Chi-Square techniques. Preliminary analysis of the ICA's survey data for each item indicated that only 4 of the 116 items approached a bimodal or rectangular distribution; the rest indicated either an approximate normal or a skewed (left or right) distribution. Thus, our analysis proceeded by using the means to compute the relevant need indices; furthermore, since we report raw frequencies and percentages in computing our tables which rank survey items, we offer users an alternative method of analysis.

A. Receiving Information From Others

Table 8 presents the amount of information both currently and ideally received from others in the organization, and Table 9 rank orders the various information topics according to their need for additional information. Most employees don't receive a great amount of information. They receive the most information about personal matters directly related to their jobs (e.g., job requirements, pay and benefits) and the least about organizational concerns (e.g., decision-making affecting their jobs, mistakes and failures, management problems). In general, employees want more information about most topics, particularly those of direct concern to them and their jobs, although the greatest need for more information was on how organizational decisions are made that affect their jobs (a majority of employees receive little information now on this topic).

B. Sending Information To Others

Table 10 presents the amount of information employees currently, ideally and need to send to others in their organization. Most employees do not have the opportunity to send much information to others. What they do send typically relates to requests for more information needed to do their jobs or reports of their job progress. They rarely have the opportunity to complain about their job or evaluate their superiors although a majority would certainly welcome this; in fact, this represents the greatest need for improvement in the opportunity to send information.

C. Sources of Information

Table 11 presents the amount of information both currently and ideally received from various sources within the organization and Table 12 rank orders these sources according to their need for additional information. Employees receive the most information from those sources closest to them (e.g., co-workers, their boss) and the least information from those who are most distant (e.g., top management, boss' boss, formal management presentations); even the "grapevine" was a source of more information than the latter. Although most employees want more information from all sources (excluding the grapevine), they want the most from their immediate supervisor. Despite the large amount of information (probably related directly to their jobs) currently received from bosses, this source represents the greatest need for more information. Additional needs focus on such distant sources as top management and department meetings, probably for more information related to organization-wide concerns, decision-making, etc. In short, respondents want to hear more from their boss and on up the hierarchy.

D. Follow-Up Action

Table 13 presents the amount of action or follow-up that is taken on information sent to others in the organization. As with information sources, the farther up the hierarchy, the worse the follow-up. The most follow-up comes from those most proximate to employees (subordinates and co-workers), and the least from top management. Although most employees indicated they perceived "some" follow-up from subordinates, co-workers and their boss, they only perceived "little" follow-up from top-management.

E. Quality of Information From Key Sources

Tables 14-18 present the extent information from supervisors, subordinates, co-workers, top management and the grapevine is timely, accurate, useful or excessive. In general, information from top management is of lower quality than that from other sources (excluding the grapevine). Most accurate and useful information tends to come from supervisors, subordinates and co-workers rather than from top management. The lowest quality information from any of the sources seems to be due to problems of timeliness (getting information too early or too late), and this is particularly true for top management from whom only 1/3 of the respondents were receiving timely information. Few employees thought they received excessive information from ary source, including the grapevine, which is consistent with earlier findings indicating a need for more information on most topics and more follow-up from most sources.

F. Channels of Communication

Table 19 presents the amount of information employees currently, ideally and need to receive from various channels of communication. Employees tend to receive the most information from telephone and written channels, as opposed to face-to-face channels. Although information received through the former, more impersonal channels, is about adequate for most employees present needs, more face-to-face communication is currently needed (primarily in meetings with top management and immediate supervisors, as indicated in C. above).

G. Organizational Communication Relationships

Tables 20 and 21 describe the extent to which communication relationships are effective and likely to enhance the climate and overall effectiveness of organizations. In general, the immediate communication climate is excellent. Most employees like working in their organization, trust their boss, co-workers and subordinates; they think their boss is warm and friendly, understands their job needs, is open, honest and a good listener. Although they believe they can tell their boss when things go wrong, they do not believe this is so for the organization at large. They do not believe the organization encourages differences of opinion, allows them to have a say in decisions affecting their job or rewards or praises them for outstanding performance; further, they believe they do not have much influence on operations within their department. In short, the immediate working climate fosters healthy interpersonal relations, whereas the organization at large tends to lack incentives, recognition, input on decision-making and opportunity for influence and sufficient advancement.

H. Satisfaction With Organizational Outcomes

Table 22 presents the extent to which employees are satisfied with various organizational outcomes. Again, most seem very satisfied with their immediate relationships and their job. They are least satisfied with their chances to get ahead, their opportunity to make a difference and their organization's overall communication efforts. Although satisfaction with pay has a bimodal distribution (several are satisfied and others are equally dissatisfied), most employees seem to feel they have gone as far as they can go in their organization. As noted in other findings, insufficient feedback, reward systems, performance appraisal and follow-up may be contributing to this focus of dissatisfaction.

I. Overall Survey Conclusions

Table 23 presents each of the 116 survey items with their means standard deviations and response distributions. Overall findings from the ICA's survey instrument include:

1. Most employees neither receive nor have the opportunity to send a great amount of information in their organizations. Their primary needs include both more information about personal job-related matters and organizational decision-making along with a greater opportunity to voice complaints and evaluate superiors.

2. In general, the farther up the organizational hierarchy, the less the follow-up, particularly related to information sent to top management.

3. The best sources of information are those closest to employees (i.e., co-workers, immediate supervisors), and the worst are those farthest away (top management, boss' boss, formal management presentations). Although employees currently receive the most information from their boss, they want even more, particularly related to the conduct of their daily jobs. The greatest needs appear to be for more job-related information from immediate supervisors and more organization-related information from top management.

4. In general, information from top management is of lower quality (less timely, accurate, useful) than that from other key sources. Although primarily a problem of top management, receiving untimely messages (too early or too late) has reduced the quality of information from all key sources.

5. Employees tend to get more information than they want and of lower wuality from their organization's "grapevine".

6. Information received through impersonal channels (telephone or written) appears adequate, but there is a need for more information through face-to-face channels.

7. The immediate communication climate is excellent and healthier than that of the organization at large. Employees like working in their organizations and enjoy healthy interpersonal relationships with those closest to them. At the same time, however, the organization as a whole limits complete openness, lacks sufficient incentives and rewards, and minimizes input, influence and advancement opportunities for its employees.

8. Although satisfied with their current progress, most employees are not too optimistic about their future within their organization. While highly satisfied with their job and close relationships, they are not satisfied with their chances to advance further or make a difference in their organization. This dissatisfaction may be due more to communication-related problems (e.g., lack of feedback, reward and appraisal systems, involvement in decision-making) than to pay or more concrete incentives.

9. In short, while job satisfaction, interpersonal relationships and work progress seem satisfactory, particularly among those in close interaction, communication problems related to insufficient input, influence, appraisal and feedback exist with more distant sources of information.

IV. ANALYSIS OF NORMS BY ORGANIZATION TYPE AND DEMOGRAPHICS

A. Contingency Analysis

Lawrence and Lorsch (1969) have shown that there is no one best kind of organization to deal with complex and changing environmental conditions. Luthans and Stewart (1977) more recently have introduced a general contingency theory of management which presents literally hundreds of potential variables influencing organizational performance. Wiio (1976) has applied contingency theory to the analysis of data collected with his LTT Audit procedure and, although finding no general relationships between demographic and communication variables, did find significant relationships in different types of organizations and in different demographic contingencies. Unfortunately, except for Wiio, no communication researcher has applied contemporary contingency theory to the study of organizational communication (Goldhaber, 1977).

Since one of the ICA's long-range goals for the Audit is the building, testing and validating of organizational communication theories, it seems to be in a good position to address the major research question: Under what contingencies do organizations communicate best when confronting their environment? Specifically, do different types of organizations have different communication needs? Do organizational internal contingencies (demographics such as age, sex, education, seniority, management level, amount of communication training) affect communication needs? Are different demographics more salient as predictors of communication need in different types of organizations? Do different combinations of demographics and organization types produce different qualities of communication relationships and communication satisfaction? In this paper, we analyze the ICA survey data bank by selected demographics and organization types as we begin to find answers to some of the questions of interest in testing contingency approaches to organizational communication.

B. Organization Type

Figures 1-4 present comparison among the 13 different organizations currently stored in the data bank. (As indicated above, data from 3 audits was collected but is not currently stored in the data bank.) Results of the ANOVA's indicate that:

1. Government organizations have a greater need to receive information than other types of organizations; educational organizations' need to receive information is slightly above the average for all organizations, and both health care and private organizations are below the average.

2. Government organizations have a greater need to send information than other types of organizations; health care organizations' need to send information is slightly above the average for all organizations, and both educational and private sector organizations are slightly below the average.

3. Government organizations have a greater need to receive information from a variety of communication sources than do other types of organizations; health care, educational and private sector organizations, all slightly below the average, do not differ greatly from each other in their need for information from different sources.

4. Workers in government organizations tend to be less satisfied with organizational outcomes than those in other organizations; satisfaction is highest among workers in private sector organizations; little difference exists in worker satisfaction between those in health care and educational organizations. These results tend to support the predictive validity of the ICA survey instrument, namely that employees who are most dissatisfied with their organizational outcomes will have the greatest need for communication improvements.

5. Although, the above findings tend to support the contingency theory proposition that differential communication effects occur among different types of organizations, a word of caution is in order. While our total sample includes 13 organizations, the sample within any one organizational category is small (health care-2, governmental-3, educational-5, private-3). Further, the apparently negative results about governmental organizations, while possibly representative of the greater population of government organizations, was collected in great part from a para-military police agency. Traits inherent to that organization's goals, structure, decision-making mechanisms, etc. may have negatively influenced these results. Nevertheless, further audits in government organizations will provide further insights into these possibilities.

C. Demographics

In order to facilitate a test of contingency theory of organizational communication, the scales of the survey were summed across items. Using the demographic variables as fixed factors in a multiple-factored ANOVA for unequal cell sizes (SPSS, Version 6.0), the various combinations of contingencies were tested as to their predictive utility regarding communication variables. With the exception of the "communication relationships" scale on the survey, all scales were unidimensional (based upon preliminary factor analysis work published in Yates, et. al., 1976) and, accordingly, the items were summed to provide an interval, continuous value for each scale. Missing values for a given item were substituted by the mean value for that item.

Each of the ten demographics and several combinations of demographics and organization types, for a total of 442 tests, were submitted to the preliminary analysis. An alpha level of .01 was used for all tests, given the preliminary nature of this contingency analysis. Such a rigid alpha level would normally increase the probability of a Type-2 error. However, since we conducted 442 tests, we used a more rigid alpha level in order to reduce Type-1 error.

Our data are presented for each of the major demographics; where second or third-order interactions may influence the main effects, such is noted. However, such interactions may be more apparent than real considering the very large N (3808) in the sample.

1. Job Classification was not a very strong correlate of organizational communication behavior. No clear pattern of relationship evolved between this demographic and measures of communication. However, salaried employees tended to want and need more information than hourlies, but the latter tended to enjoy better relations and be more satisfied with organizational outcomes.

2. Sex was somewhat associated with communication behavior. Women tended to send and receive (and want to send and receive) more information than men. Men have a greater need for information; they also tend to have more effective relationships than women. These findings should be considered in the light of the 2-way interactions found between sex and supervisory status, sex and age, sex and type of organization, and the three-way interactions among age, sex and type of organization and education, sex and type of organization.

3. Work shift was not strongly related to communication behavior. Workers in later shifts tended to want less information, have worse relationships and be less satisfied than those from earlier shifts (perhaps due to the former's relative isolation).

4. Organization Tenure was strongly related to communication behavior. Employees who worked longer with their organizations tended to receive and send more information than they needed, enjoyed better relationships and were more satisfied with organizational outcomes. For employees working 5 years or less with their present organization, the reverse was true. This demographic interacted significantly with type of organization, indicating its relatively selective nature.

5. Job Tenure was also strongly related to communication behavior, again indicating that those workers with the longest tenure in their jobs needed less and received more information while enjoying high morale and good relationships. These findings are somewhat influenced by significant two-way interactions between job-tenure and both education and supervisory status.

6. Supervisory Status was moderately associated with communication behavior. Supervisory/personnel tended to receive (and want to receive) more information than non-supervisors; furthermore, the former were more satisfied with organizational outcomes and enjoyed healthier interpersonal relationships. Supervisory status interacted significantly with sex, job tenure and type of organization.

7. Education was moderately associated with communication behavior, but for some variables the relationship was curcilinear rather than linear. Those who were the least and most educated wanted and needed the most information. As education increases, the need to send information decreases, better relationships are enjoyed and satisfaction with organizational outcomes increases. Education strongly interacted with type of organization and significantly interacted (3-way interaction) with both sex and organization type.

8. Age was one of the strongest correlates of communication behavior. Younger employees (under 40) tended to receive less and want more information than their older counterparts. Employees under 30 needed to both send and receive more information than those over 30, but only from and/or to selective sources. Although employees under 30 enjoyed better relationships, they were less satisfied with organizational outcomes than older employees. Age interacted very strongly with type of organization and somewhat with both sex and supervisory status. A significant three-way interaction was reported among age, sex and organization type.

9. Communication Training was moderately associated with communication behavior. In general, the more training, the more information received and wanted, the more effective the relationships and the more satisfying the organizational outcomes. As training increased the need to send information decreased.

10. Number of People to municate With was also moderately related to communication behavior. Those who talked to the greatest number of people tended to receive and want more information, enjoy better relationships and be more satisfied with organizational outcomes. This variable significantly interacted with type of organization.

Summarizing our basic findings about demographic variables:

1. Similar to Wiio (1976), we did not find any general relationships between demographic variables and communication variables; while we were able to identify several demographics which either strongly or moderately related to communication behavior, second or third-order interactions may have influenced these findings.

2. Age, organization and job tenure were the strongest demographic correlates of communication behavior; organization type interacted with several demographics of communication behavior.

3. The above findings, although preliminary in nature, provide strong evidence for the acceptance of a contingency approach to the study or organizational communication.

V. CONCLUSION

The ICA Communication Audit, now entering its 7th year, has finally begun to realize its intended potential, namely to begin to formulate conclusions about organizational communication behavior, perceptions and attitudes across different types of organizations. With the publication of this paper and its current norms, the dream of comparatice analyses among organizational communication researchers and practitioners is now becoming a reality. Naturally, at this stage of our development, our findings, although based upon the largest sample yet collected in the United States, are still highly tentative. Furthermore, our analysis of organization types and demographics indicates that broad generalizations about "how organizations communicate" may be misleading without considering the contingencies operating for particular organizations.

As we move toward continued theory-building in organizational communication, we invite interested researchers to both help us build and use our data bank.

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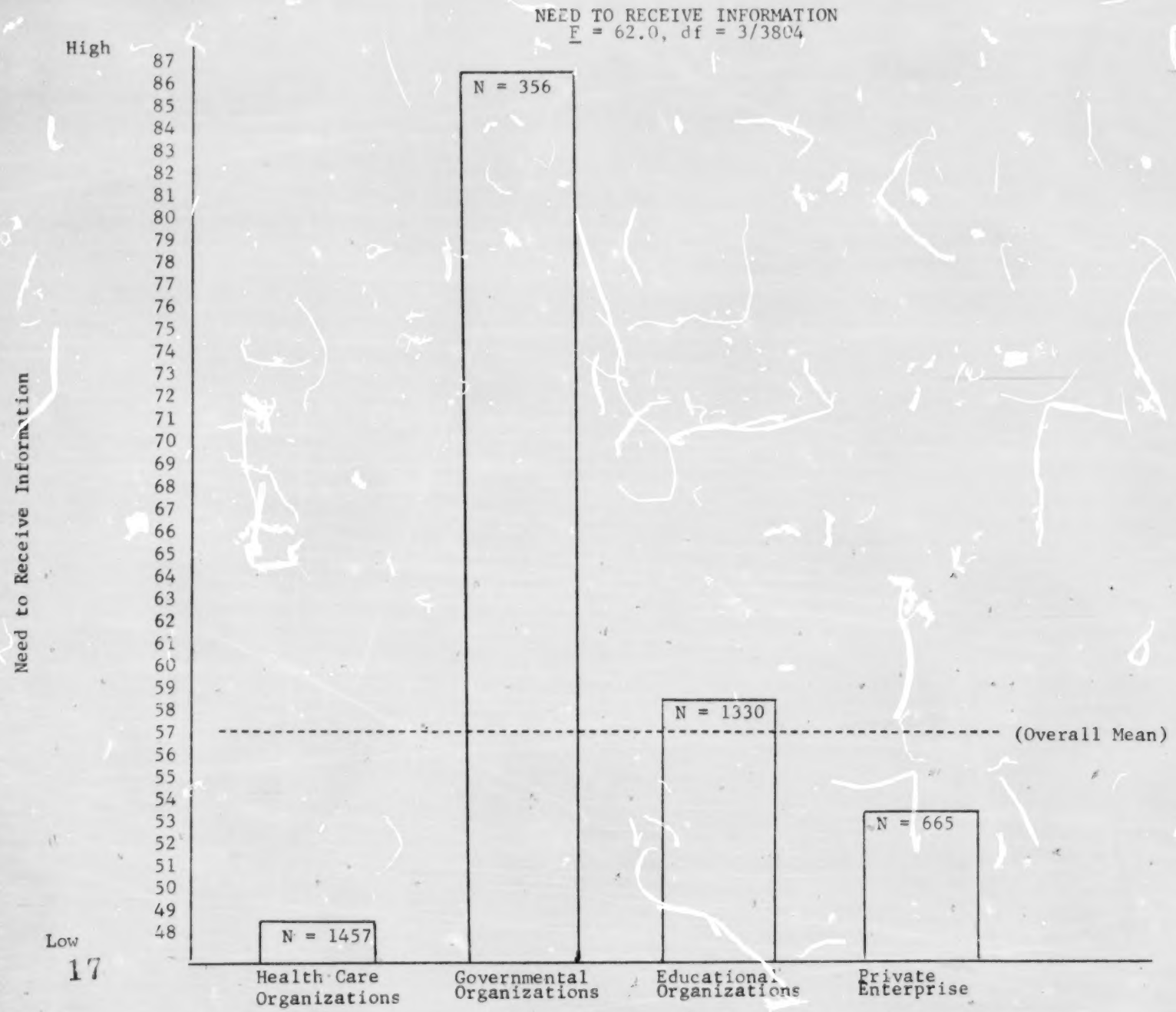
NEED TO RECEIVE INFORMATION
F = 62.0, df = 3/3804
High
Low
17
Need to Receive Information
87
86
85
84
83
82
81
80
79
78
77
76
75
74
73
72
71
70
69
68
67
66
65
64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
48
N = 1457
N = 356
N = 1330
N = 665
(Overall Mean)
Health Care Organizations
Governmental Organizations
Educational Organizations
Private Enterprise

Figure 1

NEED TO SEND INFORMATION

($\underline{F}$ = 17.2, df = 3/3804)

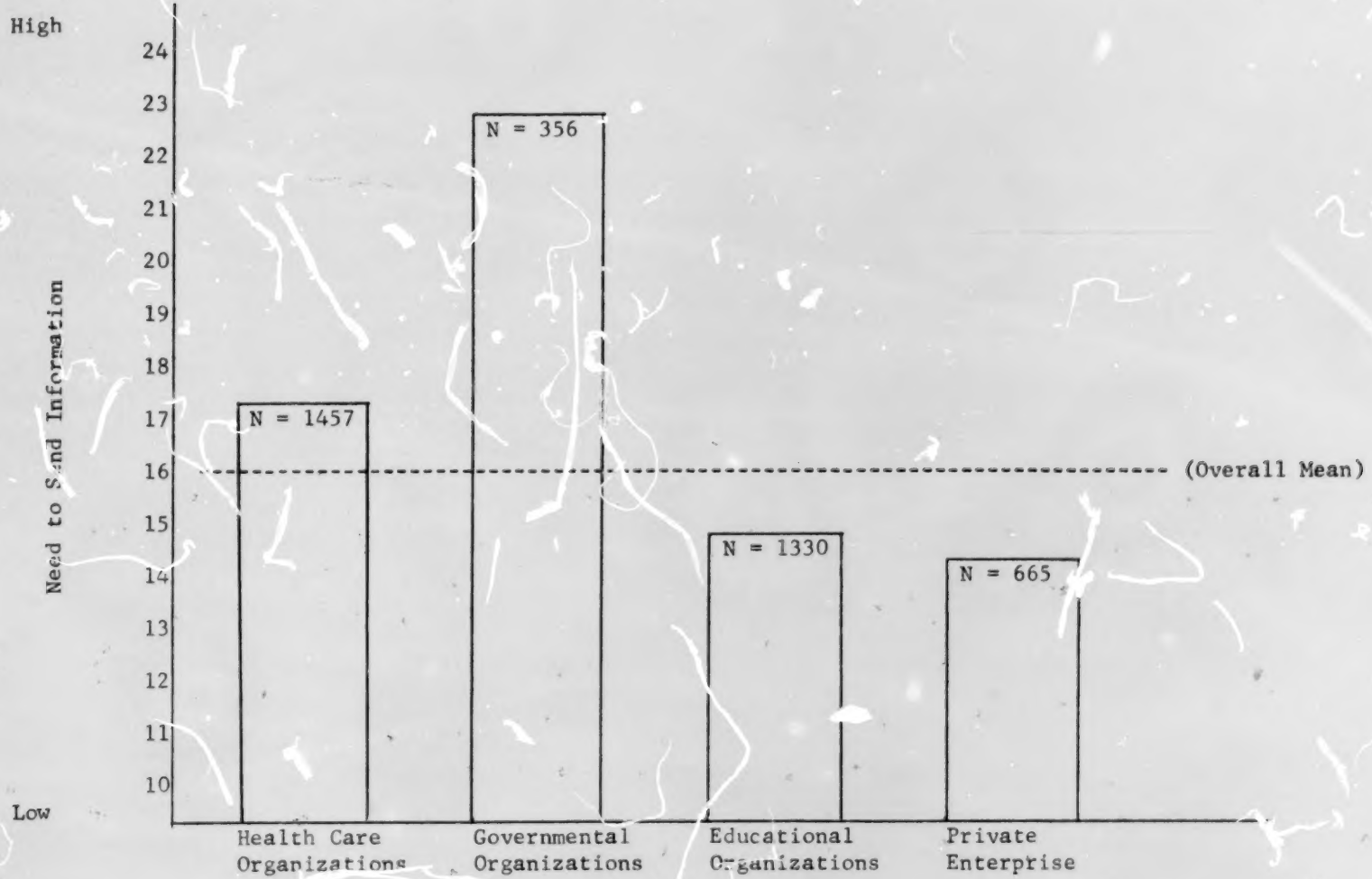

Figure 2

NEED FOR VARIOUS SOURCES OF INFORMATION

($\underline{F}$ = 92.8, df = 3/3804)

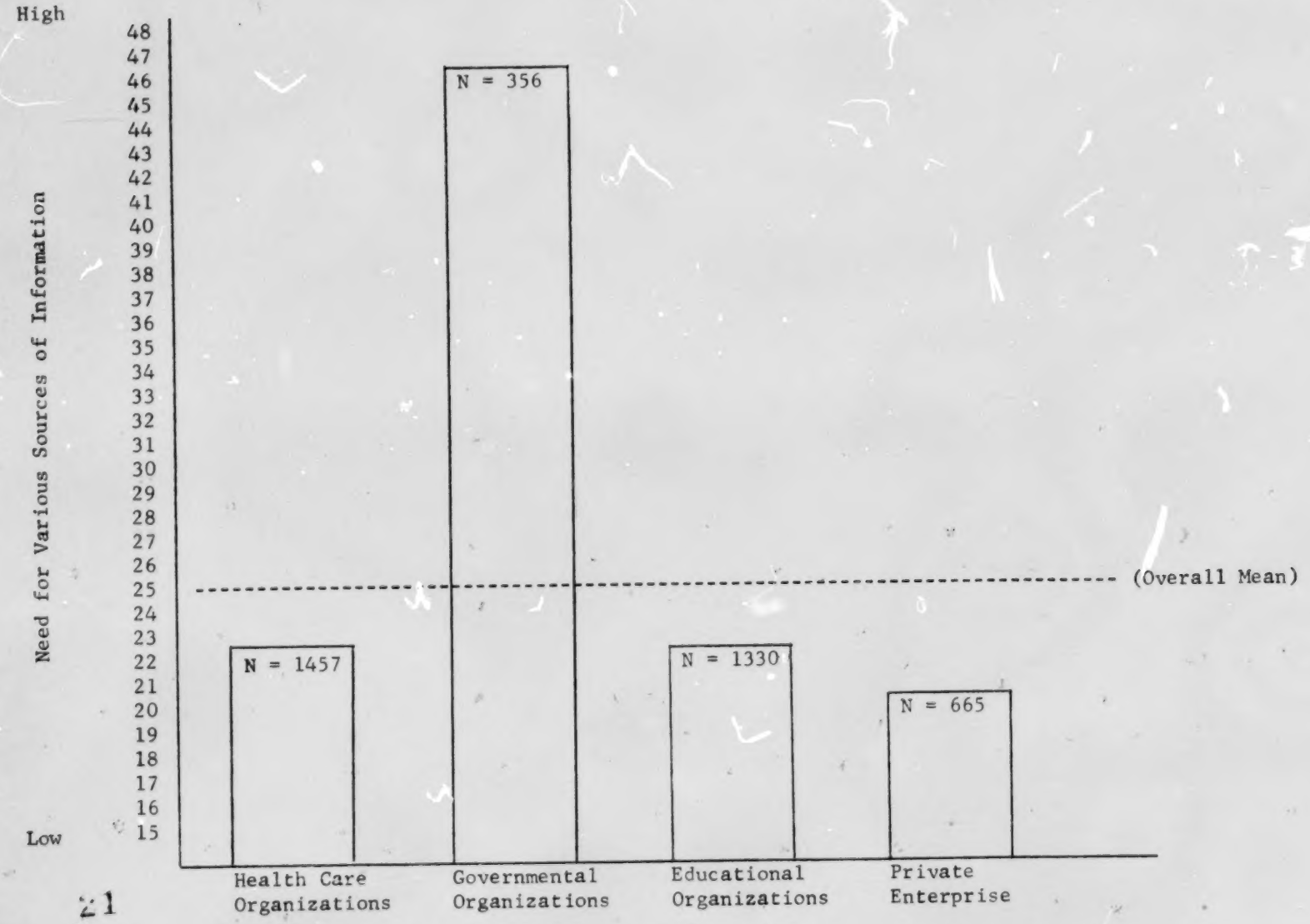

Figure 3

SATISFACTION WITH ORGANIZATIONAL OUTCOMES
($\underline{F}$ = 35.5, df = 3/3804)

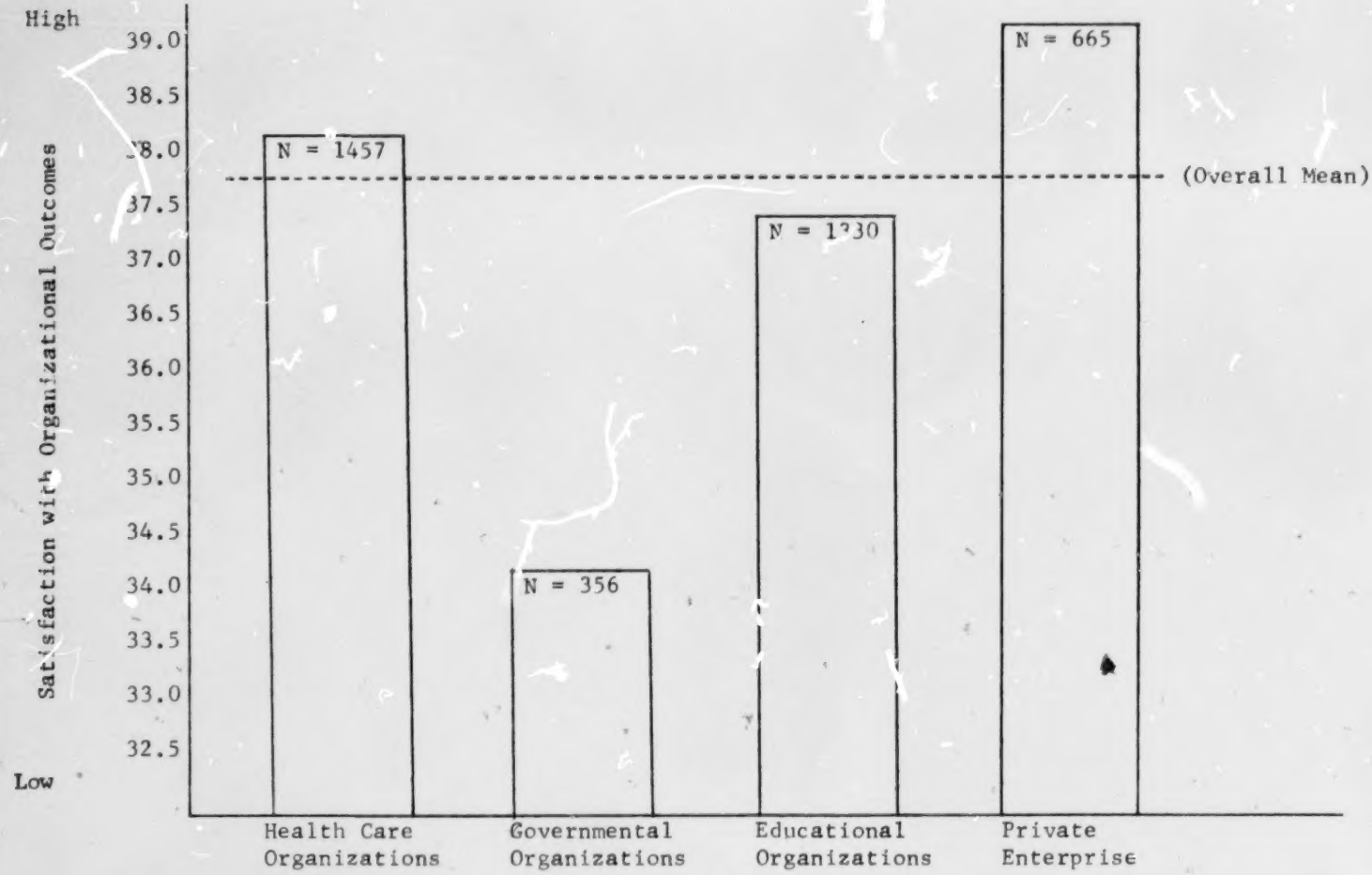

Figure 4

Table 1: Development of ICA Communication Audit

	Phase I (1971-1974) Development of Audit Procedures/Instruments	Phase II (1974-1976) Pilot-testing of Audit Procedure/Instruments	Phase III (1976-present) Implementation of Audit Procedure and Data Bank
Objectives	1. Develop conceptual framework 2. Identify, survey and evaluate audit literature 3. Develop audit procedure 4. Develop (or identify) audit instruments consistent with conceptual framework and audit procedure	1. Conduct pilot-tests of audit procedure and instruments in a variety of organizations 2. Develop computer programs to analyze the data 3. Revise audit instruments/ procedure based upon data from pilot-tests 4. Develop plan to disseminate audit results/plans to appropriate outlets	1. Implement audit procedure in variety of organizations 2. Develop norms allowing inter-organizational comparisons 3. Use audit data to build and test organizational communication theories 4. Disseminate results of audits 5. Train researchers/practitioners to become ICA communication auditors
Inputs	1. 3½ years of work from 163 researchers from 6 countries 2. 4 convention workshops 3. 3 convention meetings 4. 5 mail surveys 5. 4 literature searches (manual and computer)	1. 2 years of work from 100 researchers from 4 countries 2. 10 pilot-tests involving more than 2,000 employees 3. 6 convention workshops 4. 7 professional meetings 5. 2 grants 6. 3 management meetings 7. 1 conference call	1. 1½ years of work from 150 researchers from 7 countries 2. 6 audits involving more than 3,000 employees 3. 7 audit workshops attended by over 200 persons 4. 2 management meetings
Outputs	1. conceptual framework 2. annotated bibliography on communication audits 3. general procedure for conducting audits 4. drafts of five audit instruments 5. general procedure for credentialing auditors	1. 2 additional drafts of audit process/instruments 2. management plan outlining steps in conducting audits 3. synthesis of audit process 4. summary reports of 10 audits 5. original computer programs to analyze audit data 6. plan for giving audit feedback 7. plan for managing audit project, conducting audit workshops and disseminating audit results	1. 2 drafts of audit tools 2. operations manual 3. data bank operational (over 4,000 for survey) 4. NETPLOT operational (to help network analysis part of audit) 5. brochure printed, newsletter distributed 5 papers, 3 articles written, all to help disseminate audit information 6. 25 credentialed auditors

Table 2: Survey Topics

Topic	Number Items
1. Amount of information received/desired from others on selected topics	26
2. Amount of information sent/desired to be sent to others on selected topics	10
3. Amount of information received/desired from selected sources	18
4. Amount of follow-up or action taken on information sent to others	4
5. Quality of information received from key sources	20
6. Amount of information received/desired from selected channels	6
7. Quality of communication relationships	21
8. Satisfaction with major organizational outcomes	11
9. Perceived organizational effectiveness	2
10. Demographic information	10
TOTAL	128

Table 3: Scales Used in the Questionnaire Survey

I. Amount Scale

Topic Area	This is the amount of information I receive now					This is the amount of information I want to receive				
	Very Little	Little	Some	Great	Very Great	Very Little	Little	Some	Great	Very Great
Progress in your job	1. 1	2	3	4	5	2. 1	2	3	4	5
Pay and benefits	3. 1	2	3	4	5	4. 1	2	3	4	5

II. Extent Scale

Relationship:	To A Very Little Extent	To A Little Extent	To Some Extent	To a Great Extent	To A Very Great Extent
85. Extent to which you trust your boss	1	2	3	4	5
86. Extent to which you have a say in decisions that affect you (your job)	1	2	3	4	5

III. Satisfaction Scale

Outcome:	Very Dissatisfied	Somewhat Dissatisfied	Neither Satisfied nor Dissatisfied	Fairly Satisfied	Very Satisfied
1. Your pay	1	2	3	4	5
2. Your job	1	2	3	4	5

Table 4: Reliability/Validity of Survey Instrument[1]

SCALE	Reliability[2]	Avg. Correlation with total score	Discrimination Ability[3]	Validity Index[4]
Receiving Information[5]	.882	.643	100%	.69
Receiving Information[6]	.852	.600	100%	.07
Sending Information[5]	.825	.767	100%	.56
Sending Information[6]	.787	.734	100%	.10
Information Sources[5]	.699	.541	78%	.63
Information Sources[6]	.756	.580	89%	.06
Relationships[7]	.901	n/a	n/a	.70
Organizational Outcomes	.876	.669	100%	n/a
Overall	.838	n/a	n/a	n/a

[1] As of March 15, 1977, N=2301

[2] Nunnally, Equation 6.18, p. 193 as generated by program PIAS.

[3] Discrimination percentages are the number of items which significantly (alpha=.05) discriminate between high and low scorers (top 17% versus bottom 17% and do so with at least a difference of one standard deviation.

[4] Correlation coefficient between particular scale and "organizational outcomes" scale. All coefficients are "statistically significant".

[5] Current ratings ("amount of information received now").

[6] Ideal ratings ("amount of information wanted to receive")

[7] The relationships "scale" is multiple-dimensioned, therefore, statistics based upon total scores are misleading and left out; the validity index reported is a multiple r.

Table 5: Summary of Audits

Organization	Population	Survey Sample	Survey Return
1. Arizona Utility	4,000	400	350
2. Canadian Hospital	1,700	1,700	977
3. Florida School System	2,700	588	267
*4. U.S. Senator's Office	40	40	33
5. Pennsylvania Manufacturing Company	1,000	124	124
*6. Public Defender's Office	25	25	25
7. University Personnel Office	33	33	30
8. University Public Relations Division	68	68	52
9. U. S. Federal Agency	100	100	76
10. University Academic Department	50	50	20
11. Wisconsin Volunteer Agency	200	200	66
12. New York Bank	1,800	315	191
13. Colorado Hospital	735	735	480
14. Federal Police Agency	500	500	214
*15. Albuquerque Hospital	800	112	65
16. Kansas University	1,412	1,412	9[illegible]
TOTALS	15,163	6,402	3,931

*not in data bank

Table 6: Type of Organizations Audited

Organization Type	Number Audited	Combined Returns	% of Bank
Health Care Organizations	3	1,522	39%
Educational Organizations	5	1,330	34%
Private Enterprise	3	665	17%
Governmental Organizations	5	414	10%
TOTALS	16**	3,931	100%

**3 organizations not currently in data bank

Table 7: Demographic Profile of Persons Audited

Demographic	# Respondents	% of Total
1. Classification	1282	
Salaried	744	58%
Hourly	483	38%
Other	55	4%
2. Sex	3131	
Male	1219	39%
Female	1912	61%
3. Shift	2555	
Day Shift	2208	86%
Second Shift	178	7%
Third Shift	147	6%
Other (part-time, etc.)	22	1%
4. Organization Tenure	3354	
Less than 1 year	584	17%
1 to 5 years	1314	39%
6 to 10 years	697	21%
11 to 15 years	328	10%
More than 15 years	431	13%
5. Job Tenure	3348	
Less than 1 year	812	24%
1 to 5 years	1596	48%
6 to 10 years	578	17%
11 to 15 years	201	6%
More than 15 years	161	5%
6. Supervisory Status	3040	
Supervisor	1240	41%
Non-supervisor	1800	59%
7. Education	2361	
Completed high school	381	16%
Some college or technical school	646	27%
Completed college or tech. school	541	23%
Some graduate school	430	18%
Completed graduate school	363	15%

Demographic	# Resp.	% of Tot
8. Age	1996	
Under 20	91	5%
21 to 30	622	31%
31 to 40	497	25%
41 to 50	400	20%
over 50	386	19%
9. Communication Training	1749	
None	563	32%
Little	314	18%
Some	613	35%
Extensive	259	15%
10. # of People Communicate With	1732	
None	11	.5%
1-2	78	4.5%
A few (under 6)	296	17%
Many (more than 5)	1347	78%

Table 8 RECEIVING INFORMATION FROM OTHERS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO CURRENT QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	51.105	3.37	3.56	1920	YOUR JOB REQUIREMENTS
2	49.133	3.30	3.55	1914	PAY AND BENEFITS
3	44.669	3.23	3.50	1655	HOW YOUR JOB RELATES TO THE TOTAL OPERATION OF YOUR ORGANIZATION
4	42.130	3.19	3.46	1590	PROGRESS IN YOUR WORK
5	39.207	3.05	3.35	1454	ORGANIZATIONAL POLICIES
6	37.530	2.96	3.38	1394	HOW YOU ARE BEING JUDGED
7	32.335	2.84	3.20	1199	HOW YOUR JOB-RELATED PROBLEMS ARE BEING HANDLED
8	31.943	2.88	3.23	1179	IMPORTANT NEW SERVICE OR PROGRAM DEVELOPMENTS IN YOUR ORGANIZATION
9	30.064	2.84	3.24	997	HOW TECHNOLOGICAL CHANGES AFFECT YOUR JOB
10	29.145	2.86	3.23	1081	PROMOTION AND ADVANCEMENT OPPORTUNITIES IN YOUR ORGANIZATION
11	25.000	2.54	3.10	927	HOW ORGANIZATION DECISIONS ARE MADE THAT AFFECT YOUR JOB
12	24.686	2.65	3.10	905	SPECIFIC PROBLEMS MANAGEMENT FACES IN YOUR ORGANIZATION
13	22.300	2.59	3.06	925	MISTAKES AND FAILURES OF YOUR ORGANIZATION

RECEIVING INFORMATION FROM OTHERS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO IDEAL QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	77.717	4.08	4.13	2445	PAY AND BENEFITS
2	75.838	4.06	4.11	2404	HOW YOU ARE BEING JUDGED
3	74.763	4.00	4.04	2358	HOW YOUR JOB-RELATED PROBLEMS ARE BEING HANDLED
4	74.722	4.01	4.05	2355	HOW ORGANIZATION DECISIONS ARE MADE THAT AFFECT YOUR JOB
5	73.064	3.94	4.00	2326	YOUR JOB REQUIREMENTS
6	72.933	3.99	4.06	2295	PROMOTION AND ADVANCEMENT OPPORTUNITIES IN YOUR ORGANIZATION
7	71.816	3.93	3.96	2301	PROGRESS IN YOUR WORK
8	70.538	3.91	3.95	2324	ORGANIZATIONAL POLICIES
9	64.598	3.84	3.94	2260	HOW YOUR JOB RELATES TO THE TOTAL OPERATION OF YOUR ORGANIZATION
10	62.660	3.76	3.82	2294	IMPORTANT NEW SERVICE OR PROGRAM DEVELOPMENTS IN YOUR ORGANIZATION
11	58.988	3.63	3.73	2083	SPECIFIC PROBLEMS MANAGEMENT FACES IN YOUR ORGANIZATION
12	58.365	3.64	3.70	1793	HOW TECHNOLOGICAL CHANGES AFFECT YOUR JOB
13	58.432	3.65	3.68	1782	MISTAKES AND FAILURES OF YOUR ORGANIZATION

TABLE 9

RECEIVING INFORMATION FROM OTHERS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO NEED FOR INFORMATION

RANK	NEED INDEX	IDEAL INDEX	STATUS INDEX	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	6.335	4.01	2.54	3708	HOW ORGANIZATION DECISIONS ARE MADE THAT AFFECT YOUR JOB
2	5.969	3.99	2.66	3709	PROMOTION AND ADVANCEMENT OPPORTUNITIES IN YOUR ORGANIZATION
3	5.635	4.00	2.84	3708	HOW YOUR JOB-RELATED PROBLEMS ARE BEING HANDLED
4	5.571	4.06	2.96	3725	HOW YOU ARE BEING JUDGED
5	5.042	4.08	3.30	3692	PAY AND BENEFITS
6	5.017	3.91	3.09	3734	ORGANIZATIONAL POLICIES
7	4.979	3.63	2.65	3666	SPECIFIC PROBLEMS MANAGEMENT FACES IN YOUR ORGANIZATION
8	4.995	3.76	2.88	3691	IMPORTANT NEW SERVICE OR PROGRAM DEVELOPMENTS IN YOUR ORGANIZATION
9	4.885	3.93	3.15	3774	PROGRESS IN YOUR WORK
10	4.880	3.56	2.59	3704	MISTAKES AND FAILURES OF YOUR ORGANIZATION
11	4.692	3.49	3.23	3705	HOW YOUR JOB RELATES TO THE TOTAL OPERATION OF YOUR ORGANIZATION
12	4.598	3.94	3.37	3757	YOUR JOB REQUIREMENTS
13	4.403	3.54	2.84	3814	HOW TECHNOLOGICAL CHANGES AFFECT YOUR JOB

THE NEED INDEX REPRESENTS NEED FOR INFORMATION VERSUS OVERLOAD. THE LOWER THE NEED INDEX, THE GREATER THE TENDENCY FOR INFORMATION OVERLOAD. THE HIGHER THE NEED INDEX, THE GREATER THE NEED FOR INFORMATION ON THAT PARTICULAR TOPIC. AS THE NEED INDEX GROWS LARGER, MORE ATTENTION SHOULD BE GIVEN TO ALLOCATION OF COMMUNICATION RESOURCES TO THE APPROPRIATE INFORMATION TOPIC.

Table 10 SENDING INFORMATION TO OTHERS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO CURRENT QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	40.988	3.15	3.44	1460	REQUESTS FOR INFORMATION YOU NEED TO DO YOUR JOB
2	39.289	3.08	3.42	1459	REPORTS OF YOUR JOB ACTIVITY AND PROGRESS
3	36.114	2.93	3.38	1303	REQUESTS FOR CLARIFICATION OF CONFUSING WORK INSTRUCTIONS
4	29.636	2.70	3.25	1098	COMPLAINTS ABOUT YOUR JOB AND/OR WORKING CONDITIONS
5	25.744	2.46	3.30	926	YOUR EVALUATION (S) OF THE PERFORMANCE OF SUPERIORS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO IDEAL QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	62.139	3.71	3.86	2278	REQUESTS FOR INFORMATION YOU NEED TO DO YOUR JOB
2	60.461	3.70	3.80	2231	REPORTS OF YOUR JOB ACTIVITY AND PROGRESS
3	56.296	3.51	3.80	2079	COMPLAINTS ABOUT YOUR JOB AND/OR WORKING CONDITIONS
4	56.075	3.48	3.81	2017	REQUESTS FOR CLARIFICATION OF CONFUSING WORK INSTRUCTIONS
5	53.219	3.51	3.74	1901	YOUR EVALUATION (S) OF THE PERFORMANCE OF SUPERIORS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO NEED FOR INFORMATION

RANK	NEED INDEX	IDEAL INDEX	STATUS INDEX	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	5.015	3.51	2.46	3597	YOUR EVALUATION (S) OF THE PERFORMANCE OF SUPERIORS
2	4.956	3.51	2.70	3705	COMPLAINTS ABOUT YOUR JOB AND/OR WORKING CONDITIONS
3	4.839	3.70	3.08	3711	REPORTS OF YOUR JOB ACTIVITY AND PROGRESS
4	4.365	3.71	3.15	3567	REQUESTS FOR INFORMATION YOU NEED TO DO YOUR JOB
5	4.146	3.48	2.93	3509	REQUESTS FOR CLARIFICATION OF CONFUSING WORK INSTRUCTIONS

Table 11 SOURCES OF INFORMATION

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO CURRENT QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	56.960	3.55	3.58	2091	CO-WORKERS IN YOUR OWN UNIT OR DEPARTMENT
2	56.103	3.49	3.72	2105	YOUR BOSS (IMMEDIATE SUPERIOR)
3	37.431	2.95	3.39	1361	DEPARTMENT MEETINGS AS A SOURCE OF INFORMATION
4	34.063	2.99	3.35	436	SUBORDINATES AS SOURCES OF INFORMATION (IF APPLICABLE TO THE RESPONDENT)
5	28.676	2.70	3.27	1016	YOUR BOSS'S SUPERIOR (S) AS A SOURCE OF INFORMATION
6	27.638	2.94	3.30	994	THE GRAPEVINE (RUMOR MILL) AS A SOURCE OF INFORMATION
7	25.468	2.79	3.14	925	INDIVIDUALS IN OTHER UNITS OR DEPARTMENTS IN YOUR ORGANIZATION
8	23.730	2.55	3.14	841	FORMAL MANAGEMENT PRESENTATIONS AS A SOURCE OF INFORMATION
9	22.864	2.42	3.16	816	TOP MANAGEMENT

SOURCES OF INFORMATION

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO IDEAL QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	84.209	4.20	4.25	3141	YOUR BOSS (IMMEDIATE SUPERIOR)
2	58.405	3.55	3.43	2513	CO-WORKERS IN YOUR OWN UNIT OR DEPARTMENT
3	68.478	3.55	3.34	2493	DEPARTMENT MEETINGS AS A SOURCE OF INFORMATION
4	55.012	3.50	3.75	704	SUBORDINATES AS SOURCES OF INFORMATION (IF APPLICABLE TO THE RESPONDENT)
5	53.231	3.48	3.70	1474	YOUR BOSS'S SUPERIOR (S) AS A SOURCE OF INFORMATION
6	52.920	3.50	3.71	1476	TOP MANAGEMENT
7	47.499	3.42	3.53	1718	INDIVIDUALS IN OTHER UNITS OR DEPARTMENTS IN YOUR ORGANIZATION
8	46.809	3.35	3.54	1653	FORMAL MANAGEMENT PRESENATIONS AS A SOURCE OF INFORMATION
9	19.060	2.35	3.06	646	THE GRAPEVINE (RUMOR MILL) AS A SOURCE OF INFORMATION

TABLE 12

SOURCES OF INFORMATION

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO NEED FOR INFORMATION

RANK	NEED INDEX	IDEAL INDEX	STATUS INDEX	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	5.062	4.20	3.49	3752	YOUR BOSS (IMMEDIATE SUPERIOR)
2	5.050	3.50	2.42	3569	TOP MANAGEMENT
3	5.034	3.85	2.95	3636	DEPARTMENT MEETINGS AS A SOURCE OF INFORMATION
4	4.501	3.48	2.70	3543	YOUR BOSS'S SUPERIOR (S) AS A SOURCE OF INFORMATION
5	4.414	3.35	2.55	3544	FORMAL MANAGEMENT PRESENTATIONS AS A SOURCE OF INFORMATION
6	4.195	3.66	3.36	3671	CO-WORKERS IN YOUR OWN UNIT OR DEPARTMENT
7	4.192	3.42	2.79	3632	INDIVIDUALS IN OTHER UNITS OR DEPARTMENTS IN YOUR ORGANIZATION
8	4.100	3.50	2.99	1240	SUBORDINATES AS SOURCES OF INFORMATION (IF APPLICABLE TO THE RESPONDENT)
9	1.877	2.35	2.94	3611	THE GRAPEVINE (RUMOR MILL) AS A SOURCE OF INFORMATION

THE NEED INDEX REPRESENTS NEED FOR INFORMATION VERSUS OVERLOAD. THE LOWER THE NEED INDEX, THE GREATER THE TENDENCY FOR INFORMATION OVERLOAD. THE HIGHER THE NEED INDEX, THE GREATER THE NEED FOR INFORMATION ON THAT PARTICULAR TOPIC. AS THE NEED INDEX GROWS LARGER, MORE ATTENTION SHOULD BE GIVEN TO ALLOCATION OF COMMUNICATION RESOURCES TO THE APPROPRIATE INFORMATION TOPIC.

Table 13 Follow Up Action

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	53.926	3.41	3.67	995	FOLLOW-UP BY SUBORDINATES
2	49.615	3.42	3.56	955	FOLLOW-UP BY CO-WORKERS
3	45.352	3.23	3.50	998	FOLLOW-UP BY THE BOSS (IMMEDIATE SUPERVISOR)
4	30.076	2.65	3.29	784	FOLLOW-UP BY TOP MANAGEMENT

TABLE 14

QUALITY OF INFORMATION FROM IMMEDIATE SUPERVISORS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	67.529	3.77	3.40	1547	INFORMATION FROM THE BOSS IS ACCURATE (BELIEVABLE, TRUSTWORTHY INFORMATION)
2	59.891	3.64	3.74	1282	INFORMATION FROM THE BOSS IS USEFUL (UTILITY OF THE INFORMATION)
3	42.301	3.23	3.44	1556	INFORMATION FROM YOUR BOSS TIMELY (NOT TOO EARLY, NOT TOO LATE)
4	11.359	1.99	2.86	224	INFORMATION FROM THE BOSS IS EXCESSIVE (INFORMATION OVERLOAD)

Table 15

QUALITY OF INFORMATION FROM SUBORDINATES

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	59.490	3.60	3.59	793	INFORMATION FROM SUBORDINATES IS USEFUL (INFORMATION UTILITY)
2	56.000	3.51	3.52	714	INFORMATION FROM SUBORDINATES IS ACCURATE (BELIEVABLE, TRUSTWORTHY)
3	42.419	3.28	3.41	940	INFORMATION FROM SUBORDINATES IS TIMELY (NOT TOO EARLY, NOT TOO LATE)
4	10.342	2.04	2.75	130	INFORMATION FROM SUBORDINATES IS EXCESSIVE (INFORMATION OVERLOAD)

TABLE 16

QUALITY OF INFORMATION FROM CO-WORKERS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	54.797	3.54	3.64	1113	INFORMATION FROM CO-WORKERS IS ACCURATE (BELIEVEABLE, TRUSTWORTHY)
2	54.608	3.51	3.59	1120	INFORMATION FROM CO-WORKERS IS USEFUL (INFORMATION UTILITY)
3	42.190	3.26	3.40	1514	INFORMATION FROM CO-WORKERS IS TIMELY (NOT TOO EARLY, NOT TOO LATE)
4	8.953	2.06	2.70	171	INFORMATION FROM CO-WORKERS IS EXCESSIVE (INFORMATION OVERLOAD)

Table 17

QUALITY OF INFORMATION FROM TOP MANAGEMENT

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	53.024	3.40	3.66	982	INFORMATION FROM TOP MANAGEMENT IS ACCURATE (BELIEVABLE, TRUSTWORTHY)
2	40.260	3.15	3.43	304	INFORMATION FROM TOP MANAGEMENT IS USEFUL (INFORMATION UTILITY)
3	32.205	2.94	3.29	1132	INFORMATION FROM TOP MANAGEMENT IS TIMELY (NOT TOO EARLY, NOT TOO LATE)
4	9.639	-1.96	2.79	179	INFORMATION FROM TOP MANAGEMENT IS EXCESSIVE (INFORMATION OVERLOAD)

TABLE 18

QUALITY OF INFORMATION FROM THE GRAPEVINE

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	19.121	2.48	3.07	374	INFORMATION FROM THE GRAPEVINE TIMELY (NOT TOO EARLY, NOT TOO LATE)
2	16.316	2.41	3.06	319	INFORMATION FROM THE GRAPEVINE IS USEFUL (UTILITY OF INFORMATION)
3	17.313	2.21	3.05	339	INFORMATION FROM THE GRAPEVINE EXCESSIVE (INFORMATION OVERLOAD)
4	14.492	2.39	2.89	284	INFORMATION FROM THE GRAPEVINE ACCURATE (BELIEVABLE, TRUSTWORTHY)

Table 19

Channels of Communication

Topics Rank Ordered Positively With Regard to Current Quality

Rank	Percent	Sample Mean	Persons	Question from ICA Survey
1	55.00	3.48	2014	Written (memos, letters, notices)
2	54.00	3.47	2005	Face-to-Face
3	45.00	3.19	1640	Telephone

(The %=those feeling positvely about the topics listed above.)

Topics Rank Ordered Positively With Regard to Ideal Quality

1	73.00	3.96	2660	Face-to-Face
2	61.00	3.68	2213	Written (memos, letters, notices)
3	51.00	3.44	1866	Telephone

Topics Rank Ordered Positively With Respect To Need for Information

Rank	Need Index	Ideal Index	Status Index	Persons	Survey Item
1	4.52	3.96	3.47	2005	Face-to-Face
2	3.89	3.68	3.48	2014	Written
3	3.71	3.44	3.19	1640	Telephone

The need index represents need for information versus overload. The lower the need index, the greater the tendency for information overload. The higher the index, the greater the need for information on that particular topic. As the need index grows larger, more attention should be given to allocation of communication resources to the appropriate information topic.

TABLE 20

ORGANIZATIONAL COMMUNICATION RELATIONSHIPS

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	70.426	3.89	3.98	2510	EXTENT TO WHICH YOU LIKE WORKING IN YOUR ORGANIZATION
2	69.644	3.79	3.92	2434	DEGREE YOUR BOSS (IMMEDIATE SUPERVISOR) IS HONEST WITH YOU
3	69.247	3.77	3.98	2420	DEGREE TO WHICH YOUR TRUST YOUR BOSS (IMMEDIATE SUPERVISOR)
4	63.755	3.74	3.80	1613	EXTENT YOU TRUST YOUR SUBORDINATES (IF APPLICABLE TO THE RESPONDENT)
5	63.464	3.72	3.76	2354	DEGREE YOU TRUST YOUR CO-WORKERS
6	63.141	3.70	3.77	2340	DEGREE TO WHICH YOUR CO-WORKERS GET ALONG WITH EACH OTHER
7	61.079	3.67	3.81	2292	EXTENT YOU CAN TELL YOUR BOSS (IMMEDIATE SUPERVISOR) WHEN THINGS ARE GOING WRONG
8	56.884	3.60	3.69	1475	DEGREE YOU ARE CANDID AND FRANK WITH OTHERS IN YOUR ORGANIZATION
9	56.129	3.53	3.73	2080	DEGREE TO WHICH YOUR BOSS (IMMEDIATE SUPERVISOR) LISTENS TO WHAT YOU HAVE TO SAY
10	55.343	3.54	3.75	2063	DEGREE YOUR BOSS STRIVES TO MAINTAIN WARM AND FRIENDLY RELATIONS WITH HIS/HER SUBORDINATES
11	50.150	3.43	3.51	1437	EXTENT TO WHICH YOUR BOSS (IMMEDIATE SUPERVISOR) UNDERSTANDS YOUR JOB NEEDS
12	47.347	3.35	3.51	1737	EXTENT YOU ARE FREE TO DISAGREE WITH YOUR BOSS (IMMEDIATE SUPERVISOR)
13	41.080	3.22	3.46	1532	EXTENT TO WHICH YOU TRUST TOP MANAGEMENT
14	37.343	3.12	3.37	1395	DEGREE TOP MANAGEMENT IS SINCERE IN THEIR COMMUNICATION WITH EMPLOYEES
15	35.030	2.97	3.34	1286	DEGREE TO WHICH YOU ARE INVOLVED IN THE ACHIEVEMENTS OF YOUR ORGANIZATION'S GOALS
16	34.839	2.97	3.35	1238	DEGREE TO WHICH YOUR BOSS (IMMEDIATE SUPERVISOR) PRAISES YOU FOR A GOOD JOB
17	30.079	2.80	3.23	1115	EXTENT TO WHICH YOU HAVE A SAY IN DECISIONS THAT AFFECT YOU (YOUR JOB)
18	29.973	2.76	3.24	1080	EXTENT YOU HAVE INFLUENCE ON OPERATIONS IN YOUR UNIT OR DEPARTMENT
19	24.446	2.65	3.10	893	EXTENT TO WHICH DIFFERENT WORK GROUPS SHARE INFORMATION WITH ONE ANOTHER
20	20.143	2.64	3.01	731	DEGREE TO WHICH YOUR ORGANIZATION ENCOURAGES DIFFERENCES OF OPINION
21	17.315	2.45	2.99	629	EXTENT YOUR ORGANIZATION RECOGNIZES AND REWARDS OUTSTANDING PERFORMANCE

THE PERCENT FIGURE REPRESENTS THOSE PERSONS WHO FELT POSITIVELY ABOUT THE TOPICS LISTED ABOVE IN TERMS OF DEGREE OF QUALITY
THE NORM MEAN CAN BE CONTRASTED WITH THE SAMPLE MEAN TO COMPARE YOUR ORGANIZATION WITH OTHERS.

TABLE 21

ORGANIZATIONAL COMMUNICATION RELATIONSHIPS

TOPICS RANK ORDERED NEGATIVELY WITH RESPECT TO DEGREE OF QUALITY

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	49.312	2.46	2.99	1791	EXTENT YOUR ORGANIZATION RECOGNIZES AND REWARDS OUTSTANDING PERFORMANCE
2	41.912	2.64	3.01	1521	DEGREE TO WHICH YOUR ORGANIZATION ENCOURAGES DIFFERENCES OF OPINION
3	40.581	2.76	3.24	1482	EXTENT YOU HAVE INFLUENCE ON OPERATIONS IN YOUR UNIT OR DEPARTMENT
4	38.980	2.80	3.23	1445	EXTENT TO WHICH YOU HAVE A SAY IN DECISIONS THAT AFFECT YOU (YOUR JOB)
5	33.162	2.97	3.35	1226	DEGREE TO WHICH YOUR BOSS (IMMEDIATE SUPERVISOR) PRAISES YOU FOR A GOOD JOB
6	33.115	2.97	3.34	1215	DEGREE TO WHICH YOU ARE INVOLVED IN THE ACHIEVEMENTS OF YOUR ORGANIZATION'S GOALS
7	32.549	2.85	3.10	1189	EXTENT TO WHICH DIFFERENT WORK GROUPS SHARE INFORMATION WITH ONE ANOTHER
8	25.396	3.12	3.37	929	DEGREE TOP MANAGEMENT IS SINCERE IN THEIR COMMUNICATION WITH EMPLOYEES
9	22.204	3.22	3.46	819	EXTENT TO WHICH YOU TRUST TOP MANAGEMENT
10	19.940	3.35	3.61	732	EXTENT YOU ARE FREE TO DISAGREE WITH YOUR BOSS (IMMEDIATE SUPERVISOR)
11	17.258	3.54	3.75	637	DEGREE YOUR BOSS STRIVES TO MAINTAIN WARM AND FRIENDLY RELATIONS WITH HIS/HER SUBORDINATES
12	16.953	3.43	3.61	621	EXTENT TO WHICH YOUR BOSS (IMMEDIATE SUPERVISOR) UNDERSTANDS YOUR JOB NEEDS
13	16.945	3.53	3.73	628	DEGREE TO WHICH YOUR BOSS (IMMEDIATE SUPERVISOR) LISTENS TO WHAT YOU HAVE TO SAY
14	13.049	3.77	3.98	484	DEGREE TO WHICH YOUR TRUST YOUR BOSS (IMMEDIATE SUPERVISOR)
15	13.046	3.67	3.91	481	EXTENT YOU CAN TELL YOUR BOSS (IMMEDIATE SUPERVISOR) WHEN THINGS ARE GOING WRONG
16	11.632	3.79	3.92	432	DEGREE YOUR BOSS (IMMEDIATE SUPERVISOR) IS HONEST WITH YOU
17	11.223	3.80	3.99	291	DEGREE YOU ARE CANDID AND FRANK WITH OTHERS IN YOUR ORGANIZATION
18	8.068	3.70	3.77	299	DEGREE TO WHICH YOUR CO-WORKERS GET ALONG WITH EACH OTHER
19	7.528	3.89	3.96	279	EXTENT TO WHICH YOU LIKE WORKING IN YOUR ORGANIZATION
20	6.759	3.74	3.90	171	EXTENT YOU TRUST YOUR SUBORDINATES (IF APPLICABLE TO THE RESPONDENT)
21	6.392	3.72	3.78	237	DEGREE YOU TRUST YOUR CO-WORKERS

THE PERCENT FIGURE REPRESENTS THOSE PERSONS WHO FELT NEGATIVELY ABOUT THE TOPICS LISTED ABOVE IN TERMS OF DEGREE OF QUALITY
THE NORM MEAN CAN BE CONTRASTED WITH THE SAMPLE MEAN TO COMPARE YOUR ORGANIZATION WITH OTHERS.

TABLE 22

ORGANIZATIONAL OUTCOMES

TOPICS RANK ORDERED POSITIVELY WITH RESPECT TO SATISFACTION

RANK	PERCENT	SAMPLE MEAN	NORM MEAN	PERSONS	QUESTION FROM THE ICA COMMUNICATION AUDIT SURVEY
1	82.444	4.10	4.17	3043	YOUR RELATIONSHIP (S) WITH PEOPLE IN YOUR DEPARTMENT OR WORK GROUP
2	74.593	4.02	4.11	2383	YOUR JOB
3	71.837	3.89	4.05	2463	YOUR RELATIONSHIP WITH YOUR BOSS (IMMEDIATE SUPERVISOR)
4	60.691	3.62	3.77	2144	YOUR ORGANIZATION, AS COMPARED WITH OTHER WITH WHICH YOU ARE FAMILIAR
5	60.459	3.59	3.74	2211	YOUR PROGRESS IN YOUR ORGANIZATION UP TO THIS POINT IN TIME
6	51.507	3.24	3.53	1453	YOUR PAY
7	46.112	3.19	3.50	1593	YOUR ORGANIZATION'S CONCERN FOR ITS EMPLOYEES' WELFARE
8	42.737	3.17	3.41	1540	YOUR OPPORTUNITY TO -MAKE A DIFFERENCE- TO CONTRIBUTE TO THE OVERALL SUCCESS OF YOUR ORGANIZATION
9	45.598	3.04	3.32	1481	YOUR ORGANIZATION'S ATTEMPTS TO KEEP YOU INFORMED
10	39.372	3.03	3.29	1441	YOUR ORGANIZATION'S OVERALL COMMUNICATION EFFORTS
11	38.180	2.98	3.35	1389	YOUR CHANCES OR OPPORTUNITIES FOR GETTING AHEAD IN YOUR ORGANIZATION

THE PERCENT FIGURE REPRESENTS THOSE PERSONS WHO FELT POSITIVELY ABOUT THE TOPICS LISTED ABOVE IN TERMS OF SATISFACTION
THE NORM MEAN CAN BE CONTRASTED WITH THE SAMPLE MEAN TO COMPARE YOUR ORGANIZATION WITH OTHERS.

TABLE 23: SUMMARY OF AUDIT NORMS

INFORMATION RECEIVED

ITEM	MEAN	ST.DV.	VERY LITTLE	LITTLE	SOME	GREAT	VERY GREAT
1. Progres in your job (C)	3.15	1.21	468	599	1117	1061	529
2. " " (I)	3.93	0.85	41	127	892	1712	989
3. Your job requirements (C)	3.37	1.14	275	587	975	1308	612
4. " " (I)	3.94	0.92	81	147	777	1647	1079
5. Organization policies (C)	3.04	1.20	484	749	1037	1042	422
6. " " (I)	3.91	0.92	57	181	858	1572	1052
7. Pay and benefits (C)	3.30	1.19	354	583	941	1223	591
8. " " (I)	4.08	0.88	56	105	655	1519	1327
9. Technological changes (C)	2.84	1.19	597	608	1112	727	272
10. " " (I)	3.53	1.11	203	322	996	1068	715
11. Mistakes and failures (C)	2.59	1.17	847	855	1176	615	211
12. " " (I)	3.55	1.06	173	349	1171	1224	759
13. How you are being judged (C)	2.96	1.29	662	709	956	910	488
14. " " (I)	4.06	0.92	60	125	709	1441	1365
15. How your problems are being handled (C)	2.84	1.21	619	896	994	872	327
16. " " (I)	3.99	0.89	53	140	738	1590	1160
17. How decisions are made (C)	2.54	1.25	987	911	883	675	252
18. " " (I)	4.01	0.93	78	141	713	1485	1270
19. Promotion and advancement opportunities (C)	2.66	1.30	945	791	892	734	347
20. " " (I)	3.98	0.98	92	168	738	1386	1299
21. Program/service developments in your organization (C)	2.88	1.17	574	772	1166	877	302
22. " " (I)	3.75	0.95	84	221	1062	1434	860
23. How your job relates to total operations (C)	3.23	1.18	395	549	1106	1114	541
24. " " (I)	3.89	0.922	58	187	868	1532	1025
25. Problems management faces in your organization (C)	2.65	1.18	783	855	1123	666	239
26. " " (I)	3.63	0.99	125	253	1192	1344	736

INFORMATION SENT

27. Reports of job progress (C)	3.07	1.22	521	602	1130	977	481
28. " " (I)	3.69	1.01	137	224	1098	1391	840
29. Complaints about your job and/or working cond. (C)	2.71	1.31	900	789	918	701	397
30. " " (I)	3.51	1.24	384	336	894	1169	910

TABLE 23 (CONT.)

ITEM		MEAN	ST.DV.	VERY LITTLE	LITTLE	SOME	GREAT	VERY GREAT
INFORMATION SENT (CONT.)								
31. Requests for information needed for your job	(C)	3.14	1.21	427	589	1086	952	508
32. " "	(I)	3.71	1.08	197	235	956	1337	941
33. Evaluations of your superiors	(C)	2.46	1.39	1313	631	727	530	396
34. " "	(I)	3.51	1.19	291	351	1029	1033	868
35. Requests for clarification of instructions	(C)	2.92	1.29	691	642	972	844	459
36. " "	(I)	3.48	1.27	421	317	842	1135	882
FOLLOW-UP								
37. Top management		2.65	1.31	729	477	626	558	230
38. Immediate supervisor		3.23	1.14	216	233	621	665	223
39. Co-workers		3.42	0.99	106	172	703	723	243
40. Subordinates		3.41	1.12	156	132	469	647	239
SOURCES OF INFORMATION								
41. Your boss	(C)	3.48	1.21	322	465	860	1270	827
42. " "	(I)	4.20	0.84	56	69	464	1623	1518
43. Department meetings	(C)	2.95	1.27	673	606	996	952	409
44. " "	(I)	3.85	0.95	104	137	902	1526	957
45. Individuals in other units in your organization	(C)	2.78	1.11	593	724	1390	717	208
46. " "	(I)	3.42	1.00	167	377	1355	1215	503
47. Management presentation	(C)	2.55	1.25	984	727	992	595	246
48. " "	(I)	3.35	1.09	262	397	1216	1137	513
49. Co workers in your unit	(C)	3.55	1.04	169	370	1042	1426	665
50. " "	(I)	3.86	0.92	81	146	911	1562	948
51. The grapevine	(C)	2.93	1.15	564	458	1591	629	369
52. " "	(I)	2.34	1.24	1233	750	948	405	241
53. Boss's superior(s)	(C)	2.69	1.31	899	659	969	649	367
54. " "	(I)	3.48	1.14	283	316	1051	1166	712
55. Top management	(C)	2.43	1.29	1220	703	830	547	269
56. " "	(I)	3.49	1.15	276	332	1061	1101	775
57. Subordinates	(C)	2.98	1.13	197	148	499	348	88
58. " "	(I)	3/49	1.13	116	75	388	467	241

C=CURRENT I=IDEAL

TABLE 23 (CONT.)

ITEM		MEAN	ST.DV.	VERY LITTLE	LITTLE	SOME	GREAT	VERY GREAT
QUALITY OF INFORMATION -RECEIVED FROM YOUR BOSS								
59. Timely		3.22	1.09	328	499	1309	1140	426
60. Accurate		3.74	1.05	102	166	476	950	596
61. Useful		3.64	0.98	76	155	629	876	406
62. Excessive		1.99	1.13	920	446	382	154	70
QUALITY OF INFORMATION -RECEIVED FROM SUBORDINATES								
63. Timely		3.27	0.95	121	254	901	768	172
64. Accurate		3.51	0.95	53	110	398	567	147
65. Useful		3.59	0.95	45	108	387	592	201
66. Excessive		2.04	1.07	506	351	270	99	31
QUALITY OF INFORMATION-RECEIVED FROM CO-WORKERS								
67. Timely		3.26	0.97	197	459	1424	1235	283
68. Accurate		3.56	0.95	63	174	611	831	282
69. Useful		3.51	0.92	65	180	686	893	227
70. Excessive		1.99	1.05	787	554	398	125	46
QUALITY OF INFORMATION-RECEIVED FROM TOP MANAGEMENT								
71. Timely		2.93	1.15	539	558	1286	847	281
72. Accurate		3.40	1.16	178	186	506	680	302
73. Useful		3.15	1.15	229	274	693	572	232
74. Excessive		1.97	1.09	862	446	370	125	54
QUALITY OF INFORMATION-RECEIVED FROM THE GRAPEVINE								
75. Timely		2.48	1.21	552	416	614	240	134
76. Accurate		2.39	1.09	520	509	638	235	59
77. Useful		2.51	1.13	480	448	673	269	90
78. Excessive		2.21	1.27	796	415	389	198	137
CHANNELS OF INFORMATION								
79. Face-to-Face	(C)	3.46	1.19	344	364	987	1234	771
80. "" "	(I)	3.96	0.93	83	121	798	1503	1157
81. Telehpone	(C)	3.19	1.19	460	473	1089	1186	454
82. " "	(I)	3.34	1.11	282	323	1168	1254	612
83. Written	(C)	3.48	1.09	249	359	1046	1396	618
84. " "	(I)	3.68	0.97	129	217	1072	1475	738

C=CURRENT I=IDEAL

TABLE 23 (CONT.)

COMMUNICATION RELATIONSHIPS

ITEM	MEAN	ST.DV.	VERY LITTLE	LITTLE	SOME	GREAT	VERY GREAT
85. Extent you trust your boss	3.77	1.16	254	230	805	1242	1178
86. Extent your boss is honest with you	3.79	1.08	170	262	844	1338	1100
87. Extent you trust your subordinates	3.74	0.89	58	113	746	1127	486
88. Extent you trust your co-workers	3.72	0.87	83	154	1117	1721	633
89. Extent you trust top management	3.22	1.12	369	449	1334	1080	452
90. Extent top management is sincere in their communication with employees	3.12	1.12	391	538	1368	990	376
91. Extent co-workers get along with each other	3.69	0.91	97	202	1067	1706	634
92. Extent diferent work groups share information	2.85	1.02	431	759	1571	711	182
93. Extent your organization encourages differences of opinion	2.67	1.08	678	843	1377	579	152
94. Extent you have a say in decisions that affect you	2.78	1.21	717	728	1147	816	299
95. Extent your boss listens to what you have to say	3.53	1.14	268	360	998	1289	791
96. Extent you feel free to disagree with your boss	3.53	1.17	366	366	1202	1086	651
97. Extent you are candid and frank with others	3.59	0.98	93	198	827	1033	452
98. Extent you can tell your boss that things are going wrong	3.67	1,07	178	303	954	1377	875
99. Extent your boss praises you for a good job	2.98	1.23	605	621	1183	863	425
100. Extent your organization rewards performance	2.46	1.14	962	829	1212	462	167
101. Extent your boss maintains friendly relations	3.53	1.16	290	347	991	1217	846
102. Extent you have influence on operations in your unit	2.76	1.23	772	710	1090	771	309
103. Extent you are involved in achievement of org. goals	2.96	1.22	586	629	1168	894	392
104. Extent you like working for your organization	3.89	0.97	115	164	817	1521	1089
105. Extent your boss understands your job needs	3.43	1.08	247	374	1205	1228	609

TABLE 23 (CONT.)

SATISFACTION WITH ORGANIZATIONAL OUTCOMES

ITEM	MEAN	ST.DV.	VERY DISSAT	SOME DISSAT	NEITH.	FAIRLY SATIS.	VERY SATIS.
106. Your relationships with people in your unit	4.10	0.94	77	221	350	1651	1392
107. Your relationship with your boss	3.88	1.17	202	368	474	1283	1380
108. Your job	4.02	1.02	103	28	405	1543	1350
109. Your organization, as compared with others which you know	3.62	1.16	194	482	715	1225	919
110. Your pay	3.24	1.25	403	734	617	1303	560
111. Your progrees in your organization up to this point	3.54	1.85	244	539	663	1370	841
112. Your opportunities for getting ahead in your organization	2.97	1,26	572	788	889	928	461
113. Your organization's attempts to keep you informed	3.04	1.19	433	845	889	1089	392
114. Your organization's overall communication efforts	3.02	1.16	420	848	951	1101	340
115. Your opportunity to make a difference in you org.	3.16	1.15	360	622	1068	1104	406
116. Your organization's concern for employees' welfare	3.18	1.25	458	652	865	1129	561